

Scout Report sent out



Noted in the NID File



Location map pinned



Approval or Disapproval Letter



Date Completed, P. & A, or  
operations suspended

Pin changed on location map



Affidavit and Record of A & P



Water Shut-Off Test



Gas-Oil Ratio Test



Well Log Filed



### FILE NOTATIONS

Entered in NID File



Entered On S R Sheet



Location Map Pinned



Card Indexed



I W R for State or Fee Land

Checked by Chief



Copy NID to Field Office

Approval Letter



Disapproval Letter

### COMPLETION DATA:

Date Well Completed 8-28-58

Location Inspected

OW ☒ WW ☐ TA ☐

Bond released

GW ☐ OS ☐ PA ☐

State of Fee Land

### LOGS FILED

Driller's Log 10-24-58

Electric Logs (Mils) 3

E ☐ L ☐ E-I ☐

GR ☐

GR-N ☐

Micro ☐

Lat ☐ Mi-L ☐

Sonic ☐

Others ☐

*Induction-Electrical*

Form 9-331 b  
(April 1952)

(SUBMIT IN TRIPLICATE)

Indian Agency

UNITED STATES

Contract No. I-149-Ind-9124

DEPARTMENT OF THE INTERIOR

Allottee

GEOLOGICAL SURVEY

Lease No.

Lease No. 146339

## SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Navajo Tribe "J"

Fort Worth, Texas, July 23, 1958.

Well No. 8 is located 660 ft. from North line and 1980 ft. from West line of sec. 20

NE 1/4 Sec. 20  
(1/4 Sec. and Sec. No.)

40-South  
(Twp.)

26-East  
(Range)

SLM  
(Meridian)

Isamay  
(Field)

San Juan  
(County or Subdivision)

Utah  
(State or Territory)

The elevation of the ~~Amak~~ <sup>ground</sup> floor above sea level is 5006 ft.

### DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

OBJECTIVE FORMATION		SIZE CASING				CASING PROGRAM (Approx)	
						Set at	Cement
Top of Isamay	5510'	8-5/8"	(1500')	24.0#	New	1500'	1000 sx.
		5-1/2"	(5500')	14.0#	New		
		5-1/2"	(250')	15.5#	New	5750'	500 sx.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company THE TEXAS COMPANY  
P.O. Box 1720  
Address Fort Worth 1, Texas

THE TEXAS COMPANY

By W. C. Lens

Title Gen. Supt. Drilling & Production

ammm

July 25, 1958

The Texas Company  
P. O. Box 1720  
Fort Worth 1, Texas

Attention: W. C. Lenz, General Superintendent  
Drilling & Production

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. Navajo Tribe J-8, which is to be located 660 feet from the north line and 1980 feet from the west line of Section 20, Township 40 South, Range 26 East, SLEM, San Juan County, Utah.

Please be advised that insofar as this office is concerned, approval to drill said well is hereby granted.

Yours very truly,

OIL & GAS CONSERVATION COMMISSION

CLEON B. FEIGHT  
SECRETARY

CBF:en

cc: Phil McGrath  
USGS, Farmington,  
New Mexico

\* Note: The above approval terminates within 90 days if the above mentioned well is not spudded in within said period.

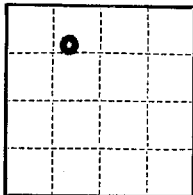
(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Allottee \_\_\_\_\_

Lease No. I-149-IND-9124



SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	<b>XX</b>
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Navajo Tribe "J"

October 10, 1958

Well No. 8 is located 660 ft. from N line and 1980 ft. from E line of sec. 20

NW of sec. 20 40-S 26-E SLM  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Isamay San Juan Utah  
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 5018 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Spudded 1:30 P.M., August 2, 1958.

Drilled 17-1/4" hole to 100' and cemented 89' of 13-3/8" O.D. casing at 100' with 125 sacks of cement. Cement circulated.

Drilled 11" hole to 1500' and cemented 1488' of 8-5/8" O.D. casing at 1500' with 1250 sacks cement. Cement circulated. Tested casing with 800# pressure for 30 minutes. Tested OK.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Texas Company

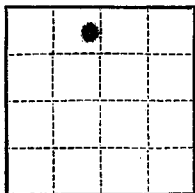
Address Box 817

Farmington, New Mexico

By [Signature]

Title Dist. Supt.

W/



(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee \_\_\_\_\_

Lease No. I-140-IND-0124

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	<b>XX</b>
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Navajo Tribe "J"

October 23, 19 58

Well No. 8 is located 600 ft. from N line and 1900 ft. from XX line of sec. 20

NW 1/4 of Section 20  
(1/4 Sec. and Sec. No.)

40-2 26-E  
(Twp.) (Range)

SLM  
(Meridian)

Isany

(Field)

San Juan

(County or Subdivision)

Utah

(State or Territory)

The elevation of the derrick floor above sea level is 5010 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Total depth 5730'. Plugged back depth 5714'.

Perforated 5-1/2" casing from 5676' to 5684' with 4 jet shots per foot. Ran 2" tubing to 5693' with packer set at 5631' and washed perforations with 500 gallons regular 15% acid.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Texas Company

Address Box 817

Farmington, New Mexico

By

Title

Dist. Supt.

W

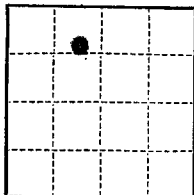
(SUBMIT IN TRIPLICATE)

Indian Agency Navajo

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Allottee \_\_\_\_\_

Lease No. 1-149-IND-9124



SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL _____	SUBSEQUENT REPORT OF WATER SHUT-OFF _____	<b>X</b>
NOTICE OF INTENTION TO CHANGE PLANS _____	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING _____	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF _____	SUBSEQUENT REPORT OF ALTERING CASING _____	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL _____	SUBSEQUENT REPORT OF REDRILLING OR REPAIR _____	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE _____	SUBSEQUENT REPORT OF ABANDONMENT _____	
NOTICE OF INTENTION TO PULL OR ALTER CASING _____	SUPPLEMENTARY WELL HISTORY _____	
NOTICE OF INTENTION TO ABANDON WELL _____		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

October 23, 1958

**Navajo Tribe "J"**

Well No. 8 is located 600 ft. from  $\begin{Bmatrix} N \\ S \end{Bmatrix}$  line and 1980 ft. from  $\begin{Bmatrix} E \\ W \end{Bmatrix}$  line of sec. 20

NW $\frac{1}{4}$  of Sec. 20  
( $\frac{1}{4}$  Sec. and Sec. No.)

40-S  
(Twp.)

26-E  
(Range)

SLM  
(Meridian)

Isaly  
(Field)

San Juan  
(County or Subdivision)

Utah  
(State or Territory)

The elevation of the derrick floor above sea level is 5018 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Drilled 7-7/8" hole to 5730' and cemented 5717' of 5-1/2" O.D. casing at 5729' with 250 sacks of cement and 500 gallons cement. Top of cement 4550'. Tested casing with 1000# pressure. Tested OK.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Texas Company

Address Box 817

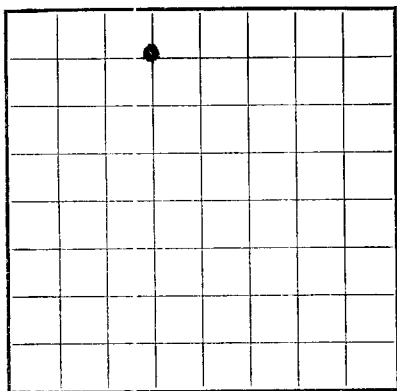
Farmington, New Mexico

By

Title

Dist. Supt.

W

U. S. LAND OFFICE Navajo  
SERIAL NUMBER I-149-IND-9124  
LEASE OR PERMIT TO PROSPECT \_\_\_\_\_

LOCATE WELL CORRECTLY

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

## LOG OF OIL OR GAS WELL

Company The Texas Company Address Box 817, Farmington, New Mexico  
 Lessor or Tract Navajo Tribe "J" Field Lamay State Utah  
 Well No. 8 Sec. 20 T. 40-S R. 26-E Meridian SLM County San Juan  
 Location 660 ft. N of N Line and 1980 ft. E of W Line of Section 20 Elevation 5018'  
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon  
 so far as can be determined from all available records.

Signed \_\_\_\_\_

Date October 24, 1958Title District Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling August 2, 1958 Finished drilling August 25, 1958

### OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5676' to 5684' No. 4, from \_\_\_\_\_ to \_\_\_\_\_  
 No. 2, from \_\_\_\_\_ to \_\_\_\_\_ No. 5, from \_\_\_\_\_ to \_\_\_\_\_  
 No. 3, from \_\_\_\_\_ to \_\_\_\_\_ No. 6, from \_\_\_\_\_ to \_\_\_\_\_

### IMPORTANT WATER SANDS

No. 1, from None to \_\_\_\_\_ No. 3, from \_\_\_\_\_ to \_\_\_\_\_  
 No. 2, from \_\_\_\_\_ to \_\_\_\_\_ No. 4, from \_\_\_\_\_ to \_\_\_\_\_

### CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
<u>13-3/8</u>	<u>48</u>	<u>8 R</u>	<u>Sals</u>	<u>89</u>	<u>None</u>	<u>None</u>			
<u>8-5/8</u>	<u>14</u>	<u>8 R</u>	<u>Sals</u>	<u>1498</u>	<u>Baker</u>	<u>None</u>			
<u>5-1/2</u>	<u>14</u>	<u>8 R</u>	<u>Sals</u>	<u>5500</u>	<u>None</u>	<u>None</u>			
<u>5-1/2</u>	<u>15.5</u>	<u>8 R</u>	<u>Sals</u>	<u>217</u>	<u>Baker</u>	<u>None</u>			

### MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>13-3/8</u>	<u>100</u>	<u>125</u>	<u>Halliburton</u>		
<u>8-5/8</u>	<u>1500</u>	<u>1250</u>	<u>Halliburton</u>		
<u>5-1/2</u>	<u>5725</u>	<u>250 sacks cement and 500 gallons coalment</u>	<u>Halliburton</u>		

### PLUGS AND ADAPTERS

Heaving plug—Material None Length \_\_\_\_\_ Depth set \_\_\_\_\_  
 Adapters—Material None Size \_\_\_\_\_

SHOOTING RECORD

MARK FOLD	13-3/8	100	125	Halliburton	
	8-5/8	1500	1250	Halliburton	
	5-1/2	5725	250 sacks cement and 500 gallons cement	Halliburton	

#### PLUGS AND ADAPTERS

Heaving plug—Material None Length     Depth set      
 Adapters—Material None Size    

#### SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
<u>None</u>						

#### TOOLS USED

Rotary tools were used from 0 feet to 5730 feet, and from     feet to     feet  
 Cable tools were used from None feet to     feet, and from     feet to     feet

#### DATES

   , 19    Put to producing Tested 8-28, 1958

The production for the first 24 hours was 172 barrels of fluid of which 96% was oil; 1%  
 emulsion; 3% water; and    % sediment. Gravity, °Bé. 42.2°

If gas well, cu. ft. per 24 hours     Gallons gasoline per 1,000 cu. ft. of gas    

Rock pressure, lbs. per sq. in.    

#### EMPLOYEES

G. H. Reid, Driller J. J. McKinney, Driller  
W. McArthur, Driller    , Driller

#### FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	550	550	Sand & Shale
550	810	260	Sand
810	1632	822	Sand & Shale
1632	2459	827	Shale
2459	2792	333	Shale & Sand
2792	2818	26	Shale & Lime
2818	3148	330	Shale
3148	3517	369	Shale & Sand
3517	3755	238	Shale
3755	4181	426	Shale & Sand
4181	4411	230	Shale
4411	4709	298	Shale & Lime
4709	4836	127	Lime
4836	5265	429	Lime & Shale
5265	5378	113	Lime
5378	5430	52	Lime & Shale
5430	5719	289	Lime
5719	5730	11	Shale
Total Depth 5730'			
Plugged Back Depth 5714'			

[OVER]

16—43094-4

W



# FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION
<u>FORMATION TOPS</u>			
			Navajo - - - - - 1019'
			Kayenta - - - - - 1258'
			Wingate - - - - - 1303'
			Chinle - - - - - 1556'
			Shinarump - - - - - 2615'
			Hoskinni - - - - - 2667'
			Organ Rock - - - - - 2724'
			Hermosa - - - - - 4618'
Formation Tops as per EL.			
<u>HOLE SIZE</u>			
0' to 100' = 17-1/4"			
100' to 1500' = 11"			
1500' to 5730' = 7-7/8"			
<u>DEVIATION TESTS</u>			
LATITUDE			
500' - 1/4°	3550' - 11/2°		
800' - 1/4°	3980' - 3/4°		
1900' - 1°	4585' - 1/2°		
2380' - 3/4°	5050' - 1/2°		
2950' - 1°	5500' - 3/4°		
DST #1 - 5595' to 5649'. Tool open 3-1/2 hours with strong blow of air and gas to surface in 63 minutes. Recovered 420' of heavy oil and gas cut drilling and 60' of free oil from drill pipe. No show of water.			
All measurements from derrick floor, 12' above ground.			

**HISTORY OF OIL OR GAS WELL**

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.

After drilling to 5780' and cementing 5-1/2" casing, top of cement plug was found to be at 5714' (P.B.T.D.). Perforated 5-1/2" casing from 5676' to 5684' with 4 jet shots per foot. Ran 2" tubing to 5693' with packer set at 5631' and washed perforations with 500 gallons regular 15% acid. After swabbing, well flowed 172 barrels of oil in 24 hours.

The Texas Co. Lse. "H"

Sec. 7

Sec. 8

RANGE 6 EAST

Sec. 9

Sec. 10

Shell Lse.

So. Union Gas

Sec. 18

Sec. 17

Sec. 16

Sec. 15

TOWNSHIP  
40  
SOUTH

The Texas Co. Lse. "K"

Carter Lse.

State - Woolley

Sec. 19

Sec. 20

Sec. 21

Navajo Tribe "J"

Sec. 22

The Texas Co. Lse. "K"

The Texas Co. Lse.  
Total: 2881.53 Ac.

Sec. 23

Sec. 24

Sec. 25

Sec. 26

Pure et al Lse.

© - U.S. GLO Marker

SAN JUAN COUNTY, UTAH

Scale 1" = 2000'

This is to certify that the courses, distances and objects reflected on the plat to which this certificate is affixed were observed and compiled under my supervision and, according to my best knowledge and belief, are true and correct.

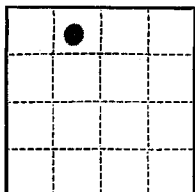
Subscribed and Sworn to this  
the 23rd day of July, A.D. 1958.

Ann Matthews  
Notary Public in and for  
Tarrant County, Texas.

ANN MATTHEWS

W. C. Phelps  
Head Draftsman  
The Texas Company

- State of Texas



(SUBMIT IN TRIPLICATE)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Indian Agency Navajo

Allottee \_\_\_\_\_

Lease No. I-149-IND-9124

SUNDRY NOTICES AND REPORTS ON WELLS

71-K  
3-10

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY
NOTICE OF INTENTION TO ABANDON WELL	<b>INSTALLATION OF PUMPING EQUIP. X</b>

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Navajo Tribe "JW"

February 10, 1959

Well No. 8 is located 660 ft. from N line and 1880 ft. from E line of sec. 20

NW 1/4 of Section 20  
(1/4 Sec. and Sec. No.)

40-3 26-E  
(Twp.) (Range)

SLM  
(Meridian)

Ismay  
(Field)

San Juan  
(County or Subdivision)

Utah  
(State or Territory)

The elevation of the derrick floor above sea level is 4784 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Installed pumping equipment and well commenced pumping November 17, 1958. On pumping test ending December 31, 1958, well pumped at the rate of 52 barrels of oil and 5-1/2 barrels of water in 24 hours. Length of pump stroke 42" with 10 strokes per minute.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Texas Company

Address Box 817

Farmington, New Mexico

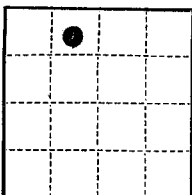
By C.H. McCool

Title Asst. Dist. Supt.

(SUBMIT IN TRIPLICATE)

Indian Agency NavajoUNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Allottee \_\_\_\_\_

Lease No. I-149-IND-9124

## SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	X
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

January 13, 1960

Navajo Tribe "J"

Well No. 3 is located 660 ft. from N line and 1980 ft. from W line of sec. 20NW 1 of Sec. 20 40-S 26-3 SLM  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)Ismy San Juan Utah  
(Field) (County or Subdivision) (State or Territory)The elevation of the derrick floor above sea level is 4784 ft.

## DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Moved in swabbing unit, pulled rods and tubing, and commenced workover 11-19-59. Perforated 5-1/2" casing from 5615' to 5622', 5628' to 5636' and 5642' to 5648' with 4 jet shots per foot. Acidized lower perforations (5675' to 5684') with 500 gallons of XFW acid. Set retainer at 5662' and acidized upper perforations (5615' to 5648') with 2000 gallons of XFW acid. Drilled out retainer at 5662'. Ran rods and tubing and put well back to pumping. After pumping well several days to stabilize pump rate, well was tested on 11-30-59. On test well pumped 177 barrels of 41.6° gravity oil in 24 hours. Length of pump stroke 42" with 10 strokes per minute.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company TEXACO Inc.Address Box 817Farmington, New MexicoBy C. H. McLeodTitle Asst. Dist. Sup't.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT IN TRIPLICATE  
(Other instructions on reverse side)Form approved.  
Budget Bureau No. 42-R1424.

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. UNIT AGREEMENT NAME <b>Emery-Flonise Park</b>
2. NAME OF OPERATOR <b>TEXACO Inc.</b>	8. FARM OR LEASE NAME
3. ADDRESS OF OPERATOR <b>Box 810, Farmington, New Mexico 87401</b>	9. WELL NO. <b>7120</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  <b>660' from North Line and 1980' from West line</b>	10. FIELD AND POOL, OR WILDCAT <b>Ismay</b>
14. PERMIT NO.	11. SEC. T., R., M., OF BLK. AND SURVEY OR AREA <b>20, T40S, R26E, S14N</b>
15. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>4784' DF</b>	12. COUNTY OR PARISH <b>San Juan</b>
	13. STATE <b>Utah</b>

## 16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐FRACTURE TREAT ☐SHOOT OR ACIDIZE ☐REPAIR WELL ☒(Other) **Convert to water inject.**PULL OR ALTER CASING ☐MULTIPLE COMPLETE ☐ABANDON\* ☐CHANGE PLANS ☐

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐FRACTURE TREATMENT ☐SHOOTING OR ACIDIZING ☐(Other) ☐REPAIRING WELL ☐ALTERING CASING ☐ABANDONMENT\* ☐

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Proposed remedial work is for the purpose of converting well from producing to water injection status. Procedure for workover will be as follows:

Using retrievable bridge plug and packer, treat perforations 5676' to 5684' with 2500 gallons of 28% Hcl acid and perforations 5615' to 5648' with 3000 gallons of 28% Hcl acid. Run plastic coated tubing with injection packer at 5550' and commence water injection.

UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
CONSERVATION COMMISSION

DATE: 1-28-66

by Paul W. Beardsall  
CHIEF PETROLEUM ENGINEER

18. I hereby certify that the foregoing is true and correct

SIGNED Reed BallTITLE District AccountantDATE 1-28-66

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEYSUBMIT (Other 1. uct. ICATE\*  
verse side)Form approved.  
Budget Bureau No. 42-R1424.

## SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input checked="" type="checkbox"/> <b>Water injection well</b>	5. LEASE DESIGNATION AND SERIAL NO. <b>1-149-IND-2124</b>
2. NAME OF OPERATOR <b>TEXACO Inc.</b>	6. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>Navajo</b>
3. ADDRESS OF OPERATOR <b>Box 810, Farmington, New Mexico 87401</b>	7. UNIT AGREEMENT NAME <b>Isany-Flodine Park</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <b>660' from North line and 1980' from West Line</b>	8. FARM OR LEASE NAME <b>-</b>
14. PERMIT NO.	9. WELL NO. <b>TL20</b>
15. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>- 4784' DF</b>	10. FIELD AND POOL, OR WILDCAT <b>Isany</b>
	11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA <b>20, T40S, R26E, S1M</b>
	12. COUNTY OR PARISH <b>San Juan</b>
	13. STATE <b>Utah</b>

## 16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
(Other) <input type="checkbox"/>	

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input checked="" type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input checked="" type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(Other) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Reason for workover was to convert well from oil producing to water injection status.

Commenced workover 2-12-66.

Treated perforations 5676 to 5684' with 2500 gallons of 28% HCL acid. Treating pressure was 3800 to 3600 psi with an average injection rate of 9 1/2 barrels per minute. Instant shut-in pressure was a vacuum. Treated perforations 5615' to 5648' with 3000 gallons of 28% HCL acid. Treating pressure was 5450 to 5200 psi with an average injection rate of 8 barrels per minute. Instant shut-in pressure was 2200 psi. Ran plastic lined tubing and injection packer and set packer at 5607'. On test ending 3-6-66, injected water at the rate of 440 barrels per 24 hours with an injection pressure of 1850 psi.

18. I hereby certify that the foregoing is true and correct

SIGNED



TITLE

District Superintendent

DATE

2/15/66

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

COMMISSIONERS

C. S. THOMSON

CHAIRMAN

C. R. HENDERSON

M. V. HATCH

J. H. REESE

D. M. DRAPER

EXECUTIVE DIRECTOR

C. B. FEIGHT



PETROLEUM ENGINEERS

PAUL W. BURCHELL

CHIEF ENGINEER

THE STATE OF UTAH  
OIL & GAS CONSERVATION COMMISSION

348 EAST SOUTH TEMPLE

SUITE 301

SALT LAKE CITY, UTAH 84111

DAvis 8-5771

March 17, 1966

Texaco, Inc.  
P. O. Box 810  
Farmington, New Mexico

Gentlemen:

On January 26th and 28th we received Notices of Intention to Convert the following wells to Water Injection. However, as of this date, we have not received subsequent reports on the operations conducted:

Ismay Flodine Park Unit No. T 118,  
Sec. 18, T. 40 S., R. 26 E.

Ismay Flodine Park Unit No. T 316,  
Sec. 16, T. 40 S., R. 26 E.

Ismay Flodine Park Unit No. T 318,  
Sec. 18, T. 40 S., R. 26 E.

Ismay Flodine Park Unit No. T 122,  
Sec. 22, T. 40 S., R. 26 E.

Ismay Flodine Park Unit No. T 117,  
Sec. 17, T. 40 S., R. 26 E.

Ismay Flodine Park Unit No. V 128,  
Sec. 28, T. 40 S., R. 26 E.

Ismay Flodine Park Unit No. T 119,  
Sec. 19, T. 40 S., R. 26 E.

Ismay Flodine Park Unit No. Q 413,  
Sec. 13, T. 40 S., R. 25 E.

Ismay Flodine Park Unit No. T 120,  
Sec. 20, T. 40 S., R. 26 E.

Ismay Flodine Park Unit No. T 121,  
Sec. 21, T. 40 S., R. 26 E.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

ANNETTE R. HANSEN  
RECORDS CLERK

arh



FORM NO. DOGM-UIC-1

STATE OF UTAH  
DIVISION OF OIL, GAS, AND MINING  
ROOM 4241 STATE OFFICE BUILDING  
SALT LAKE CITY, UTAH 84114  
(801) 533-5771  
(RULE 1-5)

IN THE MATTER OF THE APPLICATION OF

Texaco Inc.  
ADDRESS P. O. Box EE  
Cortez, Colorado ZIP 81321  
INDIVIDUAL PARTNERSHIP CORPORATION X  
FOR ADMINISTRATIVE APPROVAL TO DISPOSE OR  
INJECT FLUID INTO THE IFPU - T120 WELL  
SEC. 20 TWP. 40S RANGE 26E  
San Juan COUNTY, UTAH

CAUSE NO. \_\_\_\_\_

ENHANCED RECOVERY INJ. WELL ☒  
DISPOSAL WELL ☐

APPLICATION

Comes now the applicant and shows the Division the following:

1. That Rule 1-5 (b) 6 authorizes administrative approval of enhanced recovery injections or disposal operations.
2. That the applicant submits the following information.

Lease Name <u>Ismay-Flodine Park</u>	Well No. <u>T120</u>	Field <u>Ismay</u>	County <u>San Juan</u>
Location of Enhanced Recovery Injection or Disposal Well <u>NE 1/4 NW 1/4</u> Sec. <u>20</u> Twp. <u>40S</u> Rge. <u>26E</u>			
New Well To Be Drilled Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Old Well To Be Converted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Casing Test Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Date <u>Aug 1959</u>	
Depth-Base Lowest Known Fresh Water Within 1/2 Mile <u>980'</u>	Does Injection Zone Contain Oil-Gas-Fresh Water Within 1/2 Mile YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		State What <u>Oil &amp; Gas</u>
Location of IFPU Producing Wells and Injection Source(s) <u>3 Source wells</u>		Geologic Name(s) <u>Ismay +/- 5600</u> and Depth of Source(s) <u>Salt Wash, Entrada &amp; Navajo</u> <u>490'-1215'</u>	
Geologic Name of Injection Zone <u>Paradox-Ismay</u>		Depth of Injection Interval <u>5615 to 5684</u>	
a. Top of the Perforated Interval: <u>5615</u>	b. Base of Fresh Water: <u>980</u>	c. Intervening Thickness (a minus b) <u>4635'</u>	
Is the intervening thickness sufficient to show fresh water will be protected without additional data? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Lithology of Intervening Zones <u>Sandstone, Limestone, Anhydrite w/intermittent shale layers</u>			
Injection Rates and Pressures Maximum <u>500 B/D</u> <u>2300 PSI</u>			
The Names and Addresses of Those To Whom Copies of This Application and Attachments Have Been Sent <u>The Navajo Tribe</u> <u>Box 146</u> <u>Window Rock, Arizona 86515</u>			

State of Colorado

County of Montezuma

Alvin R. Marx  
Applicant

Field Supt.

Before me, the undersigned authority, on this day personally appeared Alvin R. Marx  
known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states, that he is duly  
authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Subscribed and sworn to before me this 16th day of Dec., 19 83

SEAL

My commission expires 10/25/87

Joe D. Roybal

Notary Public in and for Colorado  
728 N. Beech. Cortez, Co. 81321

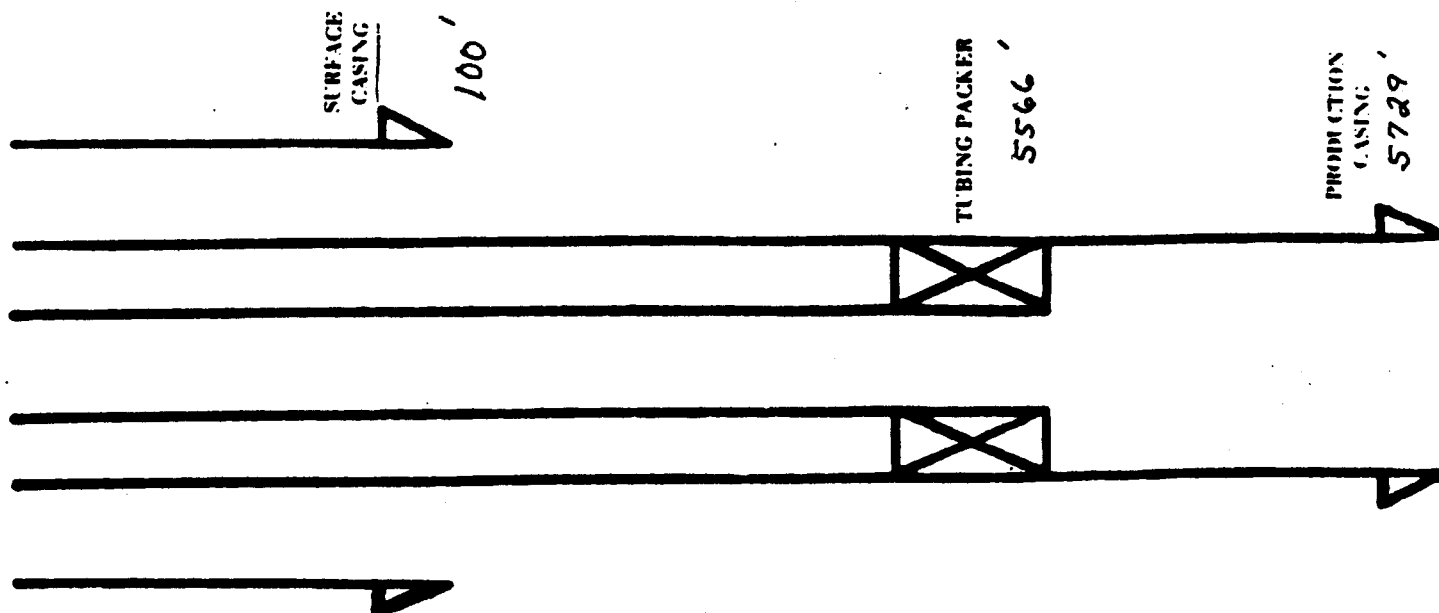
(OVER)

1. Attach qualitative and quantitative analysis of fresh water from 2 or more producing wells within 1 mile of injection well showing location of wells and date samples were taken, or statement as to why samples were not submitted.
2. Attach qualitative and quantitative analysis of representative sample of water to be injected.
3. Attach plat showing subject well and all known oil and gas wells, abandoned, drilling and dry holes within 1/2 mile, together and with name of operator.
4. Attach Drillers Log (Form DOGM-UIC-2). (Appropriate Surety must be on file with Conservation Division.)
5. Attach Electric or Radioactivity Log of Subject well (if released).
6. Attach schematic drawing of subsurface facilities including: Size, setting depth, amount of cement used measured or calculated tops of cement surface, intermediate (if any) and production casings; size and setting depth of tubing; type and setting depth of packer; geologic name of injection zone showing top and bottom of injection interval.
7. The original and 6 copies of application, and one complete set of attachments shall be mailed to the Division.
8. Deliver 1 copy of application to landowner on whose land injection well is located and to each operator of a producing leasehold within 1/2 mile of injection well.
9. Affidavit of mailing or delivery shall be filed not later than five days after the application is filed.
10. Notice that an application has been filed shall be published by the Division in a newspaper of general circulation in the county in which the well is located. The Division shall file proof of publication before the application is approved. The notice shall include name and address of applicant, location of proposed injection or disposal well, injection zone, injection pressure and volume. If no written objection is received within 15 days from date of publication the application will be approved administratively.
11. A well shall not be used for injection or disposal unless completed machine accounting Form DOGM-UIC-3b is filed September 1st, each year.
12. Approval of this application, if granted, is valid only as long as there is no substantial change in the operations set forth in the application. A substantial operation change requires the approval of a new application.
13. If there is less intervening thickness required by Rule I-5 (b) 4 attach sworn evidence and data.

## CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
Surface	13 3/8"	100	125	Circulated	
Intermediate	8 5/8"	1500	1250	Circulated	
Production	5 1/2"	5729	250	4550	Calculated
Tubing	2 3/8"	5566	5 1/2"	Name - Type - Depth of Tubing Packer Mod-R PS Retrievable 5566	
Total Depth	Geologic Name - Inj. Zone		Depth - Top of Inj. Interval		Depth - Base of Inj. Interval
5730	IS MAY		5615		5684

SKETCH - SUBSURFACE FACILITY



PLEASE TYPE OR USE BLACK INK ONLY

(To be filed within 30 days after drilling is completed)

I-149-1ND-4124

DEPARTMENT OF NATURAL RESOURCES AND ENERGY

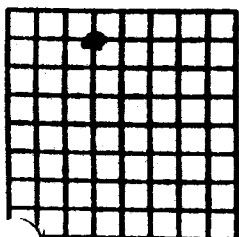
DIVISION OF OIL, GAS, AND MINING

Room 4241 State Office Building

Salt Lake City, Utah 84114

API NO

040 Acres



Section 160 Corners  
and Section Lines

COUNTY San SEC. 20 TWP. 40S RGE. 26E

COMPANY OPERATING Juan Texaco Inc.

OFFICE ADDRESS P. O. Box EE

TOWN Cortez STATE CO ZIP 81321

FARM NAME Ismay-Flodine WELL NO. 7120

DRILLING STARTED 2-2-58 DRILLING FINISHED 8-28-58

DATE OF FIRST PRODUCTION \_\_\_\_\_ COMPLETED 8-28-58

WELL LOCATED NE NE NW

660 FT. FROM NE OF 4 SEC. & 1980 FT. FROM WL OF 4 SEC.

ELEVATION SURFACE FLOOR 5018 GROUND 5006

TYPE COMPLETION

Single Zone Ismay Order No. \_\_\_\_\_

Multiple Zone \_\_\_\_\_ Order No. \_\_\_\_\_

Comingled \_\_\_\_\_ Order No. \_\_\_\_\_

LOCATION EXCEPTION

OIL OR GAS ZONES

Name	From	To	Name	From	To
<u>Ismay</u>	<u>5615</u>	<u>5684</u>			

CASING & CEMENT

Casing Set				Cas. Test	Cement		
Size	Wgt	Grade	Feet	Psi	San	Fillup	Top
<u>13 3/4"</u>	<u>48</u>		<u>100</u>		<u>125</u>		<u>circulated</u>
<u>8 7/8"</u>	<u>24</u>		<u>1506</u>	<u>800</u>	<u>1250</u>		<u>circulated</u>
<u>5 1/2"</u>	<u>14-15.5</u>		<u>5729</u>	<u>1000</u>	<u>256</u>		<u>4550</u>

TOTAL DEPTH 5730

PACKERS SET  
DEPTH 5566

COMPLETION & TEST DATA BY PRODUCING FORMATION

FORMATION	<u>Ismay</u>	<u>ISMAY</u>	
SPACING & SPACING ORDER NO.	<u>80 acre</u>		
CLASSIFICATION (Oil; Gas; Dry; Inf. Well)	<u>OIL</u>	<u>3-6-66</u>	
PERFORATED	<u>5615-22, 5628-36</u>	<u>Con to WI</u>	
INTERVALS	<u>5642-49, 5628-34</u>	<u>SAME Perfs</u>	
ACIDIZED?	<u>2500 gal XFw HCl</u>	<u>5500 gal 28% HCl</u>	
FRACTURE TREATED?			

INITIAL TEST DATA

Date	<u>11-30-59</u>	<u>3-6-66</u>	
Oil bbl./day	<u>177 BOPD</u>		
Oil Gravity	<u>41.6</u>		
Gas. Co. Ft./day			
Gas-Oil Ratio Co. Ft./Bbl.			
Water-Bbl./day		<u>440 BwIPD/1250 psi</u>	
Pumping or Flowing	<u>Pumping</u>		
CHOKE SIZE			
FLOW TUBING PRESSURE			

A record of the formations drilled through, and pertinent remarks are presented on the reverse.  
(see reverse side)

I, the undersigned, being first duly sworn upon oath, state that this well record is true, correct and complete according to the records of this office and to the best of my knowledge and belief.

Telephone 1-303-565-8401 John R. Mays Field Supt  
State of Colorado  
County of Montezuma  
Subscribed and sworn before me this 16th day of December, 19 83

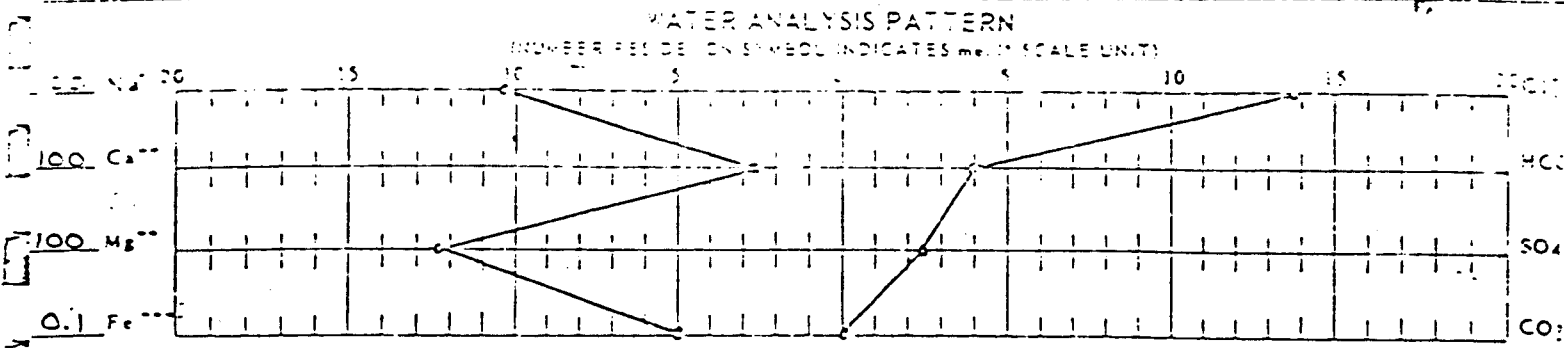
My commission expires 10/25/87 John D. Roysdal  
728 N. Beech, Cortez, Co.  
81321

# NL Treating Chemicals/NL Industries, Inc.

P.O. Box 1675, Houston, Texas 77001

## WATER ANALYSIS REPORT

COMPANY <b>TEXACO, INCORPORATED</b>						SHEET NUMBER <b>1</b>
DATE <b>5 APRIL 1982</b>						
FIELD <b>ANETH</b>			COUNTY OR PARISH <b>SAN JUAN</b>		STATE <b>UTAH</b>	
WELL OR NAME OR NO. <b>ANETH</b>		WATER SOURCE INFORMATION <b>INJECTION WATER</b>				
DEPTH, FT.	SHT. F.	SAMPLE SOURCE <b>PLANT</b>	TEMP. F.	WATER DEL. DAY	OIL DEL. DAY	
DATE SAMPLED <b>5 APRIL 1982</b>		TYPE OF WATER <input type="checkbox"/> PRODUCED <input checked="" type="checkbox"/> SUPPLY <input checked="" type="checkbox"/> WATERFLOODED <input type="checkbox"/> SALT WATER				



### DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	392.0	
Calcium, Ca <sup>++</sup>	268.0	5360.0
Magnesium, Mg <sup>++</sup>	124.0	1519.0
Iron (Total) Fe <sup>+++</sup>	0.5	10.0
Barium, Ba <sup>++</sup>	—	1.0
Sodium, Na (calc.)	1035.1	23867.3
ANIONS		
Chloride, Cl <sup>-</sup>	1360.3	45000.0
Sulfate, SO <sub>4</sub> <sup>-</sup>	24.5	1175.0
Carbonate, CO <sub>3</sub> <sup>-</sup>	0.0	0.0
Bicarbonate, HCO <sub>3</sub> <sup>-</sup>	4.0	224.0
Hydroxyl, OH <sup>-</sup>	0.0	0.0
Sulfide, S <sup>-</sup>	18.8	300.0

### DISSOLVED GASES

Hydrogen Sulfide, H <sub>2</sub> S	337.5 mg/l*
Carbon Dioxide, CO <sub>2</sub>	185.0 mg/l*
Oxygen, O <sub>2</sub>	1.0 mg/l*

### PHYSICAL PROPERTIES

pH	6.65
Eh (Redox Potential)	N.D. MV
Specific Gravity	N.D.
Turbidity, JTU Units	N.D.
Total Dissolved Solids (calc.)	81385.3 mg/l*
Stability Index $\frac{77}{F}$	+0.39
CaSO <sub>4</sub> Solubility $\frac{140}{F}$	+1.32
CaSO <sub>4</sub> Solubility $\frac{176}{F}$	306.6 me/l*
Max. CaSO <sub>4</sub> Possible (calc.)	306.8 me/l*
Max. BaSO <sub>4</sub> Possible (calc.)	24.5 me/l*
Residual Hydrocarbons	1.0 mg/l*
	N.D. ppm

### SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

### REMARKS AND RECOMMENDATIONS:

**WATER SHOWS A TENDENCY TOWARD SCALING; PRIMARILY CALCIUM CARBONATE**

\* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm used, corrections should be made specific gravity.

ENGINEER <b>MARK BROTHERS</b>	DIST. NO. <b>12</b>	ADDRESS <b>CARMINGTON, N.M.</b>	OFFICE PHONE <b>505-325-5701</b>	HOME PHONE <b>505-325-</b>
----------------------------------	------------------------	------------------------------------	-------------------------------------	-------------------------------

TEXACO

☐ INSTRUCTIONS - CANCELS LETTER: SIOF

SIGNED BY \_\_\_\_\_

☐ PERMANENT☐ ROUTINE☐ TEMPORARY

19

(LOCATION)

(DATE)

Subject: Water Analysis from  
Navajo Aquifer

Aneth Unit H415

Location - SE 1/4 - SE 1/4 Sec 15, T40S, R24E

Sample Date - 1-17-59

Depth - Navajo Aquifer

Temp - 67°F

Ph - 8.7

Total Dissolved Solids - 2573 ppm

SiO<sub>2</sub> - 16 ppmCO<sub>3</sub><sup>=</sup> - 130 ppmCa<sup>+</sup> - 7 ppmHCO<sub>3</sub><sup>-</sup> - 156 ppmMg<sup>++</sup> - 28 ppmSO<sub>4</sub><sup>=</sup> - 599 ppmNa<sup>+</sup> - 76 ppmCl<sup>-</sup> - 757 ppm

Aneth Unit G422

Location - SW 1/4 - SE 1/4 Sec 22, T40S, R24E

Sample Date - 1-18-59

Depth - Navajo Aquifer

Temp - 67°F

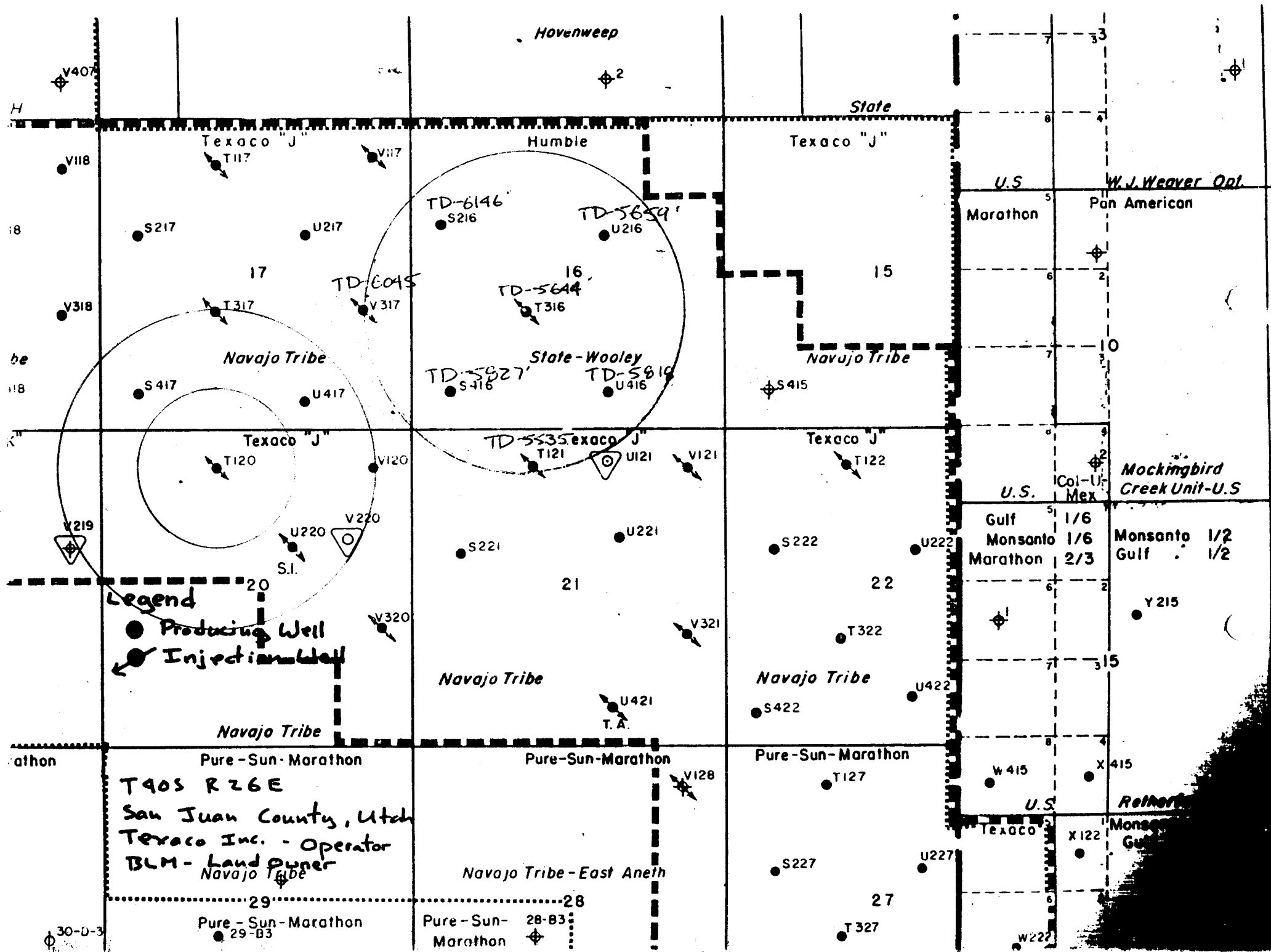
Ph - 9.2

Total Dissolved Solids - 2823 ppm

SiO<sub>2</sub> - 17 ppmCO<sub>3</sub><sup>=</sup> - 925 ppmCa<sup>+</sup> - 6 ppmHCO<sub>3</sub><sup>-</sup> - 912 ppmMg<sup>++</sup> - 8 ppmSO<sub>4</sub><sup>=</sup> - 265 ppmNa<sup>+</sup> - 915 ppmCl<sup>-</sup> - 271 ppm\* Note: these numbers were obtained from Texaco Files  
in the Denver Division officeIf letter requires reply prepare in triplicate, for-  
warding original and duplicate, and retain copy.

P.O. Box 2100

Denver, CO  
80201 By \_\_\_\_\_



# CHECKLIST FOR INJECTION WELL APPLICATION AND FILE REVIEW

Operator: Ispaco Well No. Isamay Floodline Park T120  
 County: San Juan T 405 R 26E Sec. 20 API# 43-037-16459  
 New Well ☐ Conversion ☐ Disposal Well ☐ Enhanced Recovery Well ☒

	YES	NO
UIC Forms Completed	<u>✓</u>	
Plat including Surface Owners, Leaseholders, and wells of available records	<u>✓</u>	
Schematic Diagram	<u>✓</u>	
Fracture Information	<u>✓</u>	
Pressure and Rate Control	<u>✓</u>	
Adequate Geologic Information	<u>✓</u>	
Fluid Source	<u>Isamay</u>	

Analysis of Injection Fluid	Yes <u>✓</u> No <u>      </u>	TDS <u>81385</u>
Analysis of Water in Formation to be injected into	Yes <u>✓</u> No <u>      </u>	TDS <u>81385</u>

Known USDW in area	<u>None</u>	Depth <u>980</u>
Number of wells in area of review	<u>6</u>	P&A <u>0</u>
		Water <u>0</u> Inj. <u>2</u>

Aquifer Exemption	Yes <u>      </u> NA <u>✓</u>
Mechanical Integrity Test	Yes <u>      </u> No <u>✓</u>
Date	<u>      </u> Type <u>      </u>

Comments: TOC 4550

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Reviewed by: 



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Norman H. Bangerter, Governor  
Dee C. Hansen, Executive Director  
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

June 12, 1987

CERTIFIED RETURN RECEIPT REQUESTED  
P001 861 910

Texaco, Incorporated  
Post Office Box EE  
Cortez, Colorado 81321

Attn: A.A. Kleier

Gentlemen:

RE: Mechanical Integrity of Injection Wells in the Ismay-Flodine  
Park and Aneth Units

Recent field work and monthly reports have revealed probable tubing, packer and/or casing leaks in several injection wells located in the subject units. The following wells appear to have excessive casing pressure:

ANETH UNIT

B-312  
C-124  
E-413  
F-222  
F-422  
G-120  
G-136  
H-222  
H-227  
H-410  
H-427  
F-423

ISMAY-FLODINE PARK UNIT

T-121  
T-316  
T-327  
V-220  
T-120 40S 26E Sec 20

Please submit written notice of Texaco's efforts to maintain proper mechanical integrity in these wells, include an evaluation of existing conditions, and future plans and schedules for corrective actions.



Page 2  
June 12, 1987  
A.A. Kleier

Thank you for your continued cooperation. If you have any questions regarding this request or the operation of Class II injection wells in Utah, please call.

Sincerely,

A handwritten signature in black ink, appearing to read "Gil Hunt", with a long horizontal flourish extending to the right.

Gil Hunt  
UIC Manager

mfp  
0134U/77



Texaco

T-120 4DS 26E Sec 20

**RECEIVED**  
JUL 06 1987

DIVISION OF  
OIL, GAS & MINING

TEXACO INC.  
P. O. BOX EE  
Cortez, CO. 81321  
June 30, 1987

Mr. Gil Hunt  
UIC Manager  
State of Utah Natural Resources  
355 W. North Temple Suite 350  
Salt Lake City, Utah 84180

Dear Mr. Hunt,

In response to your attached letter dated June 12, 1987, Texaco is aware that some of our injection wells at our Aneth Unit and our Ismay Flodine Park Unit have revealed probable tubing and/or packer leaks. Texaco does not feel that casing leaks have developed since the casing and tubing pressure are the same. The casing pressure would be substantially less if a casing leak were present.

Texaco is presently attempting to perform 3 to 4 UIC repairs per month depending on manpower and budget. A well with a suspected casing leak is immediately shut in to prevent any possible environmental contamination. Our plans for the remainder of 1987 are to continue to repair several wells per month until all wells experiencing annulus pressure are repaired. Please note that Aneth Unit F222, H222 and H410 were worked on and repaired in June 1987. The IFPU V220 should be corrected to U220.

Texaco realizes the importance of maintaining the integrity of our injection wells. We will continue to work toward eliminating all wells with mechanical problems and attempt to identify on going failures in a timely manner. Texaco appreciates your cooperation regarding this matter and will continue to work closely with your department in correcting any inadequacies.

Please contact the Cortez office if you have any question regarding this matter.

Sincerely,

Alan A. Kleier

Attachment

cc: LAA  
file

Utah Division of Oil, Gas, and Mining  
Casing - Bradenhead Test

Operator: TEXACO INC.

Field/Unit: ISMAY

Well: T-120

Township: 40S Range: 26E Sect: 20

API: 43-037-16459

Welltype: INJW Max Pressure: 2300

Lease type: INDIAN

Surface Owner: BLM

Last MIT Date: 08/01/58

Witness: F Test Date: 9/13/88  
9:06 AM

CASING STRING	SIZE	SET AT	PRESSURE	OBSERVATIONS
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Surface:

133/8

100

cont to surface

Intermediate:

8 5/8

1500

cont to surface

Production:

5 1/2

5729

0

Other:

0

Tubing:

2 3/8

900

Packer:

5566

Recommendations:

OK

Form OGCC-1b

**STATE OF UTAH**  
**OIL & GAS CONSERVATION COMMISSION**

**SUBMIT IN TRIPlicate\***  
(Other instructions on reverse side)

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <b>X</b> Injection Well		6. LEASE DESIGNATION AND SERIAL NO. <b>I-149-IND-9124</b>
2. NAME OF OPERATOR <b>Texaco Inc. (505) 325-4397</b>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME <b>Navajo</b>
3. ADDRESS OF OPERATOR <b>3300 N. Butler Farmington, NM 87401</b>		8. UNIT AGREEMENT NAME <b>Ismay Flodine Park</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface  <b>660' FNL and 1780' FWL</b>		9. FARM OR LEASE NAME
14. PERMIT NO. <b>43-037-116459</b>		10. WELL NO. <b>T120</b>
15. ELEVATIONS (Show whether DF, RT, OR, etc.) <b>5018' DF</b>		11. FIELD AND POOL, OR WILDCAT <b>Ismay</b>
		12. SEC., T., R., M., OR BLE. AND SURVEY OR AREA <b>Sec 20, T40S-R26E</b>
		13. COUNTY OR PARISH <b>San Juan</b>
		14. STATE <b>Utah</b>

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

## NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	MULTIPLE COMPLETE	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input checked="" type="checkbox"/>	ABANDON*	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>
(Other)	<input type="checkbox"/>		

## SUBSEQUENT REPORT OF:

WATER SHUT-OFF	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
FRACTURE TREATMENT	<input type="checkbox"/>	ALTERING CASING	<input type="checkbox"/>
SHOOTING OR ACIDIZING	<input type="checkbox"/>	ABANDONMENT*	<input type="checkbox"/>
(Other)	<input type="checkbox"/>		

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Texaco Inc. proposes the following workover procedures to insure sufficient water disposal to prevent oil production loss.

1. MIRU pump truck. Pump 6000 gal 15% NEFe in 3 equal stages with two - 500 lb. salt blocks between stages.
2. SI 1 hour.
3. Back-flow well to recover load. Place well on injection.

Injection rate is 50 BWPD, 1300 psi tbq pressure and 0 csg pressure.

Your consideration and approval would be appreciated.

OIL AND GAS	
DRN	RJF
JRB	GLH
DTS	SLS
Area Manager	
4-5-90	
MICROFILM	
FILE	

**Accepted by the State  
of Utah Division of  
Oil, Gas and Mining**

**Date: 4-5-90**

**By: [Signature] 4-5-90**

18. I hereby certify that the foregoing is true and correct.

SIGNED

*Alan A. Klever*

3-2-TAS

Area Manager

(This space for Federal or State office use)

APPROVED BY  
CONDITIONS OF APPROVAL, IF ANY:

DATE

BLM-Region (6), OGCC (5), Navajo Tribe, RSL, AAK  
Action is Necessary

\*See Instructions on Reverse Side



TEXACO

## FAX TRANSMITTAL COVER SHEET

NOTE: DO NOT USE BLUE OR RED INK OR PENCIL ON THIS FORM. THEY WILL NOT REPRODUCE

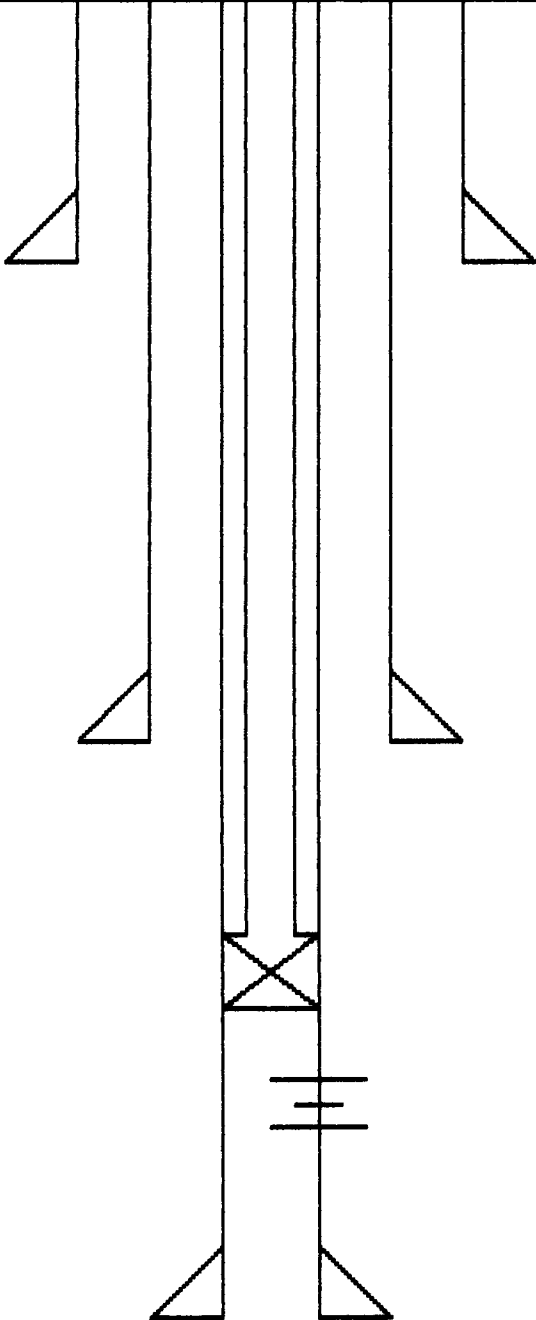
DATE: 4-5-90 ☒ URGENT ☐ ROUTINE NO. OF PAGES C+3MESSAGE TO: Gil HuntTELEPHONE NO. (801) 538-5340 FAX MACHINE NO. 801-359-3940

DEPT./DIV./SUBS. \_\_\_\_\_

LOCATION Salt Lake, Utah ROOM NO. \_\_\_\_\_MESSAGE FROM: Alan A. Kleier / JDPTELEPHONE NO. (505) 325-4397 FAX MACHINE NO. \_\_\_\_\_

DEPT./DIV./SUBS. \_\_\_\_\_

LOCATION Farmington, N. Mex. ROOM NO. \_\_\_\_\_SENDING DEPT. APPROVAL \_\_\_\_\_ TIME TRANSMITTED 3:50 P☐ RETURN ORIGINAL VIA INTER-OFFICE MAIL☐ RETURN ORIGINAL CALL SENDER TO PICK UPADDITIONAL COMMENTS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

WELL T-120	OPERATOR TEXACO	LOCATION 20-40S-26E
COMMENTS		COUNTY SAN JUAN
 <p>The diagram illustrates a wellbore with multiple casing and tubing strings. On the left, there are two vertical lines representing casing, each with a triangle at the bottom. Between them are two more vertical lines representing tubing, also with triangles at the bottom. A packer is indicated by a cross symbol on the inner tubing string. Below the packer, there are three horizontal lines representing perforations. To the right of the diagram, the following specifications are listed:</p> <p>13 3/8 @ 100'</p> <p>8 5/8 @ 1500'</p> <p>2 3/8 TUBING</p> <p>PACKER AT 5566'</p> <p>5 1/2 @ 5729</p> <p>PERFS AT</p> <p>5615-5684</p>		

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPlicate  
(Other instructions  
verse side)

Form approved  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

I-149-IND-9124

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

Ismay-Flodine Park

8. FARM OR LEASE NAME

9. WELL NO.

T120

10. FIELD AND POOL, OR WILDCAT

Ismay

11. SEC., T., R., M., OR BLK. AND  
SURVEY OR AREA

Sec. 20, T40S, R26E

12. COUNTY OR PARISH 13. STATE

San Juan Utah

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug a well. Use "APPLICATION FOR PERMIT—" for such purposes.)

1. OIL WELL ☐ GAS WELL ☐ OTHER ☒ Water Injection JUL 25 1990

2. NAME OF OPERATOR

Texaco, Inc

3. ADDRESS OF OPERATOR

3300 N. Butler, Farmington, NM 87401

DIVISION OF  
OIL, GAS & MINING

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below.)  
At surface

660' FNL & 1780' FWL

14. PERMIT NO.

42-037-16459

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

5018' DF

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETION

ABANDON\*

CHANGE PLANS

<input type="checkbox"/>
<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

REPAIRING WELL

ALTERING CASING

ABANDONMENT\*

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

TEXACO INC. proposes to plug and abandon the subject well as described by the attached procedure:

OIL AND GAS	
DFN	RJF
JRB	GLH
DIS	SLB
2 DME	
MICROFILM	
3- FILE	

18. I hereby certify that the foregoing is true and correct

SIGNED

*Alan D. Kleier*

TITLE Area Manager

DATE 7/10/90

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

ACCEPTED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

DATE: 8-13-90

BY: *John R. Bay*

BLM-FARMINGTON (6), UOGCC (5), Navajo Tribe, RSL, *and* *approval of this action is required before commencing operations.* \*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**ATTACHMENT**

**TEXACO INC.**

**ISMAY - FLODINE PARK UNIT # T120**  
**PLUGGING PROCEDURE**

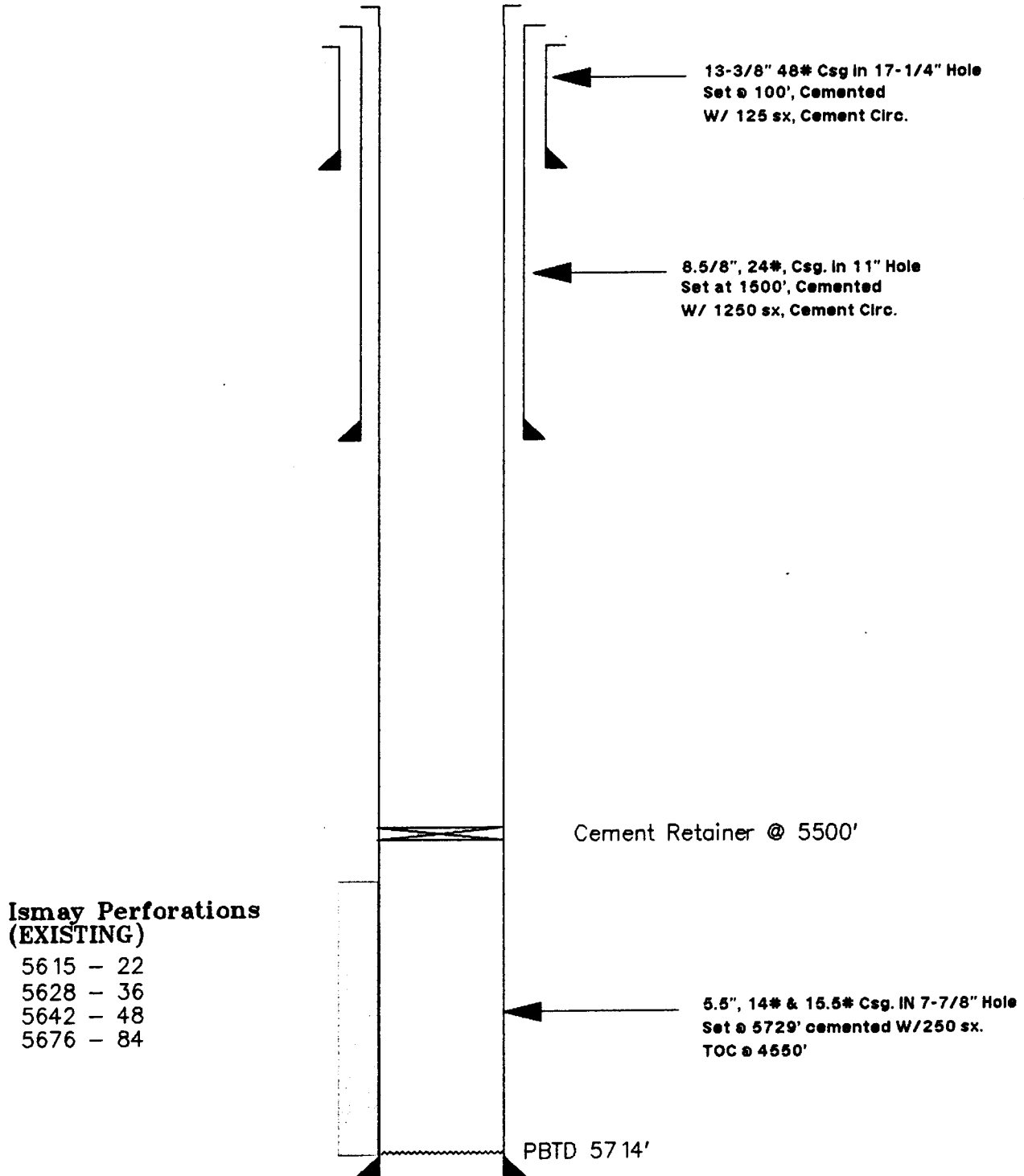
- 1) MIRU pulling unit, install BOP W/ 2-3/8" pipe rams and blind rams. TIH W/ stinger for cement retainer on 2-3/8" tubing; sting into retainer at 5500'.
- 2) Pump 60 sx API Class B (or G) neat cement (5.2 gal water/sx, 1.18 Cu Ft./sx) down tubing. Flush tubing with 21 bbl 10 ppg mud. Pull out of retainer and flush tubing with 2 Bbls 10 ppg mud and TOH W/ tubing.
- 3) Rig up wireline and shoot 2 squeeze holes at 4550' (Hermosa). RIH W/ wireline set Cement Ret. and set at 4450'. RIH W/ tubing and sting into retainer. Open 8-5/8" to 5-1/5" casing valve. Pump down tubing and attempt to break circulation. Pump 60 sx class B cement down tubing; flush tubing with 17 Bbls 10 ppg mud. Pull out of retainer and pump 30 Bbl 10 ppg mud. TOH W/ tubing.
- 4) Shoot 2 squeeze holes at 2540' (De Chelly). Follow step 3) except set retainer at 2440' and flush tubing with 11 Bbls 10 ppg mud. Pull out of retainer and pump 14 Bbls 10 ppg mud.
- 5) Shoot 2 squeeze holes at 1510' (Chinlee). Set cement retainer at 1410' and try to establish circulation, if established, bring cement to surface; otherwise pump 60 sx. Flush tubing with 5 Bbls 10 ppg mud. Pull out of retainer and pump 28 Bbls 10 ppg mud.
- 6) Spot 50' surface plug ( 7 sx ) in 5-1/2" casing, cut off wellhead, erect marker, remove injection line and deadmen, and clean location.

10 ppg mud = 1 sx Barite / bbl fresh water, Yield = 1.06



TEXACO INC.

## Ismay-Flodine Park Unit # T120



PBTD 5714'

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.

SUBMIT IN TRIPLICATE

RECEIVED

MAR 18 1991

1. Type of Well  
☐ Oil Well ☐ Gas Well ☒ Other **INJECTION**

2. Name of Operator  
**Texaco Inc.**

3. Address and Telephone No.  
**3300 N. Butler, Farmington N.M. 87401 (505) 325-4397**

4. Location of Well (Footage, Sec., T., R., or Survey Description)  
**660' FNL, & 1780' FWL  
NE/NW Sec. 20, T40S / R26E**

5. Lease Designation and Serial No.

**I-149-IND-9124**

6. If Indian, Allottee or Tribe Name

**Navajo**

7. If Unit or CA, Agreement Designation

**Ismay-Flodine Park**

8. Well Name and No.

**T120**

9. API Well No.

**43-037-16459**

10. Field and Pool, or Exploratory Area

**Ismay**

11. County or Parish, State

**San Juan, Utah**

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent  
☐ Subsequent Report  
☒ Final Abandonment Notice

TYPE OF ACTION

- ☒ Abandonment  
☐ Recompletion  
☐ Plugging Back  
☐ Casing Repair  
☐ Altering Casing  
☐ Other \_\_\_\_\_  
☐ Change of Plans  
☐ New Construction  
☐ Non-Routine Fracturing  
☐ Water Shut-Off  
☐ Conversion to Injection  
☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

11-30-90 TIH W/ 2-3/8" tbg. and sting into cmnt ret. @5500'. Pump 60 Sx. Class G neat cmnt at 2 bpm and 0 psi. Flush tubing and filled csg to 4450' w/ 10 ppg mud. RU wireline service and shoot 4 way sqz holes at 4550'. TIH w/ wireline set cmt ret. and set at 4445'. TIH w/ stinger on tbg, sting into ret. Pump 1 BBI cement and communicated with 5-1/2" csg annulus. Pumped 29 SX class "G" on top of ret. as per BLM man Mr. Herman Lujan. Pump 10 ppg mud to 2440'

TIH w/ wireline and shoot 4 sqz holes at 2540'. Set wireline set ret at 2410'. TIH W/ tbg and sting into ret. Pumped 59.5 SX class 'G' at 1.7 BPM and 275 psi. Pump 10 ppg mud to 1410'. TOH W/ tbg. Shoot 4 way sqz holes on wireline at 1510'. Set wireline-set cmt ret. at 1410'. TIH W/ tbg. Could not pump into sqz holes at 2200 psi. Sting out of ret. and pump 60 SX. on ret. as per BLM man Mr. Herman Lujan. Circ. hole w/ 10 ppg mud TOH W/ tbg. TIH W/ open ended tbg to 50'. Spot 7 SX surf. plug while POH W/ tbg. Mr. Lujan said that he was very satisfied with the Job. 11-22-90 Cut off wellhead, removed deadmen and classified P & A. (Will reclaim the location in spring) FINAL REPORT

14. I hereby certify that the foregoing is true and correct

Signed

*Alan A. Klier*

Title **Area Manager**

Date **3/5/91**

(This space for Federal or State office use)

Approved by

Title

Date

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction on Reverse Side